

C

Please amend claims 110-114 and 117 as follows:

110. (Twice amended) A substrate with a surface comprising  $10^3$  or more groups of oligonucleotides with different, known sequences covalently attached to the surface in [predefined] <sup>discrete</sup> known regions, said  $10^3$  or more groups of oligonucleotides occupying a total area of less than  $1 \text{ cm}^2$  on said substrate, said groups of oligonucleotides having different nucleotide sequences.

7 111. (Twice amended) The substrate as recited in claim 110 wherein said substrate comprises  $10^4$  or more different groups of oligonucleotide with known sequences covalently coupled to <sup>discrete</sup> [predefined] known regions of said substrate.

3 112. (Twice amended) The substrate as recited in claim 110 wherein said substrate comprises  $10^5$  or more different groups of oligonucleotides with known sequences in <sup>discrete</sup> [predefined] known regions.

4 113. (Twice amended) The substrate as recited in claim 110 wherein said substrate comprises  $10^6$  or more different groups of oligonucleotides with known sequences in <sup>discrete</sup> [predefined] known regions.

5 114. (Twice amended) The substrate as recited in claim 110 wherein said groups of oligonucleotides are at least 50% pure within said <sup>discrete</sup> [predefined] known regions.

7 117. (Amended) An array of more than [500] 1,000 different groups of oligonucleotide molecules with known sequences covalently coupled to a surface of a substrate, said groups of oligonucleotide molecules each in <sup>discrete</sup> [predefined] known regions and differing from other groups of oligonucleotide